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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

ON SO-CALLED TYPHOID FEVER.

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(Continued from No. 953.)

The treatment of this fever is as varied as all else connected with it. Commencing with Louis, who was the first to give us the pathology of this fever, we find that he generally commences the treatment by general blood-letting, proportioned to the severity of the disease and strength of the patient; he thinks that if this remedy is resorted to within the first ten or twelve days of the fever, it has a tendency to shorten the duration *a few days*, diminishing the gravity and lessening the mortality of the disease; he aids the blood-letting by suitable drinks, emollient enemata, and cool *fresh* air. Tonics he deems useful, and prefers the sulphate of quinia to any other article, given in eight to twenty grain doses, in mucilage; he urges the necessity of rest, cleanliness and free ventilation, during the progress of the disease, but sums all up by saying, "that these agents possess a favorable though limited influence upon the march and termination of the disease."

Bouillaud's treatment was extravagant, in the immense amount of blood abstracted, in nearly all stages of the fever, and we wonder, while reading his method of cure, if his assertions were true when he claims that "Success or cure is the law, failure or death the exception." What would be thought of such practice in this day and generation? condemnation, of course.

De Larroque's method of treatment was the administration of an active antimonial emetic, immediately followed by the use of seidlitz water, castor oil and calomel, continuing them up to the time of convalescence, without regard to the state of the bowels, the condition of the patient, or the period of the disease.

Trousseau's practice was decidedly more rational; he says: "In a great number of cases of dothineria I remain almost passive. When it follows its natural course, when the symptoms and special complications do not demand active measures, my treatment is limited to prescribing infusion of camomile as a tisane, acidulated drinks, such as lemonade or orangeade, and water sweetened with gooseberry or cherry syrup. The intervention of art is generally useless in the eruptive fevers, to which dothineria presents striking analogies. Their progress is but very slightly modified by the available resources of medicine; when the cases are mild, recovery takes place spontaneously, and a judicious physician will avoid disturbing the curative efforts of nature by unseasonable meddling. On the other hand, when the cases are severe, the disease often shows threatening tendencies as it advances, and then our interference may be of real benefit. But such fortunate occasions are more frequently met with in scarlatina, measles and small-pox, than in dothineria, yet in all of them we are most commonly obliged to recognize our impotence, and submit to consequences which we cannot prevent." "I look upon dietetic management as the chief feature in the treatment, and I attribute the success which I have had in typhoid fever to the dietetic plan which I followed." When the

stools are excessive, both in number and quantity, he prescribes a saline purgative, sulphate of soda or tartrate of potash and soda, followed, if necessary, by equal quantities of subnitrate of bismuth and prepared chalk, given from three to eight times during the twenty-four hours: this is the substance of his treatment.

Aitken says, "The chief indications of treatment are to reduce temperature and subdue vascular excitement, if these be in excess; to restrain and moderate, but not to suppress or check the diarrhoea; to stimulate the nervous system, when necessary; to obtain a free action of the kidneys, and to influence the elimination of the morbid growth from the intestinal glands." For the first he uses digitalis; for the second, lime water and milk in equal parts, taken as a drink; ipecacuanha, in small and repeated doses; to stimulate the nervous system, uses alcohol; to maintain a free action from the kidneys, the warm bath, with repeated small doses of the alkaline carbonates, or nitrate or bitartrate of potash; and to eliminate from the intestinal glands, one or two grains of calomel twice a day.

Niemeyer says, "When abdominal typhus has once begun, we may, under some circumstances, attempt to cut short its course. It is now generally recognized that this cannot be done by emetics or venesection." "These measures almost always have an injurious influence on the course of the disease." He recommends that at first we should give typhoid patients small quantities of milk and strong broth, several times daily, whenever they desire it; has typhoid patients washed all over with pure cold water, or with a mixture of three parts of water to one of vinegar, repeated several times daily, and should be done very carefully. In a mild, regular course of typhoid, we need give no medicine. If the diarrhoea is profuse, he recommends solution of alum, ℥j to aqua, ℥vj, or of tannin, ℥j to ℥ss to f.℥vj, as a general support, and good strong wine.

Flint says, "It must be admitted that the known resources of therapeutics do not afford reliable means for the arrest of these fevers, or even shortening the duration of the febrile career." Hygienic and supporting measures form the most important part of the treatment of typhoid and typhus fever. Hygienic measures indicated are complete ventilation, cleanliness, regulation of temperature, which should not be allowed to rise above sixty degrees Fahr.; foremost of these

is an abundance of pure air; the evacuations should always be instantly removed; when practicable the bed and body linen should be changed daily; supporting measures embrace tonic remedies, alcoholics and alimentation, more especially the two latter. "The importance of support is based on the plain fact that typhus and typhoid fever, being self-limited diseases, if the patient can be kept alive after three or four weeks, recovery must take place, provided there be no serious complication."

Wood says, "It must be borne in mind that the disease generally runs a certain course, and that this is sometimes very protracted." He begins treatment with a mild purge, generally using sulph. magnesia or castor oil. When the pulse is full and strong, and sanguineous determination to the brain or other vital organ is obvious, blood may be taken from the arm, to the amount of eight to twelve or sixteen ounces, and cases may occur in which it may be proper to repeat the operation. Bleeding will not arrest it, and if carried too far, or improperly employed, may so prostrate the system as to cause it ultimately to sink under the malady. Refrigerant diaphoretics should be employed from the commencement; he prefers the citrate of potassa, in the form of effervescing draught, cold ablutions; the diarrhoea should be allowed to take its course unless too exhausting, then control by small doses of opium and ipecacuanha, to which kino, acetate of lead, etc., may be added, if necessary. Nervous symptoms may be quieted by sweet spirits nitre, Hoffman's anodyne, or camphor water. Should the disease not yield to the above treatment, he advises the use of blue mass, one grain every two hours, until the mouth is affected; he generally gives,

R.	Mass,	gr. xij
	Ipecacuanha,	gr. ij
	Opium,	gr. ij. M.

Made into twelve pills, one to be taken every hour, hour and a half, or two hours; should the symptoms not yield, give the oil of turpentine, in doses from five to twenty drops, every hour or two, in emulsion.

Bartlette says, "After the first few days, in cases of moderate or average severity, with no special or urgent indication, it is quite clear, I think, that all treatment in any way decidedly active or perturbing is to be avoided. The tendency of the disease in all such cases is toward a natural termination in health, and there is no evidence that the dangerous com-

plications which are liable to occur can be prevented by any active interference."

Clymer says:—"Typhoid fever runs a definite course, with a natural tendency to a happy termination. Young and previously healthy persons pass through the disease favorably, with little or no treatment."

It would be folly to quote further from any known authorities relative to the treatment necessary in typhoid fever. We have given prominent, and what is considered reliable authors, touching their views and the treatment they deem necessary in this disease. The reader will perceive that all the authorities quoted class it as a specific disease, running a definite course, requiring, generally, but little therapeutic interference for its cure, and as an evidence of that fact, we will give a few illustrations, derived from reliable sources.

Dr. Fleischmann's report of the Hospital of the Sisters of Charity, of Vienna: of 819 cases treated exclusively by the homœopathic plan, extending over a period of nine years, 14 died, or 1 in 58. "In 63 cases in St. Thomas Hospital, London, in which Dr. Williams used only simple enemata of warm water, all got well but one."

Prof. Flint, recognizing the treatment of typhoid and typhus fevers as being the same, gives us an account, in his "Practice of Medicine," page 728, of 82 cases of typhus, transferred from an emigrant ship at Perth Amboy, New Jersey, in 1837, to wooden shanties with sail roofs; 12 were in a state of insensibility when removed. On the night of their removal, there was a violent thunder gust, accompanied by torrents of rain, and the following morning the clothes of all were saturated with water. The medical treatment consisted "of an occasional laxative or enema. Vegetable acids and bitters were liberally administered, together with the free use of cold water, buttermilk and animal broths." Four sailors who sickened after the arrival of the vessel were removed to an ordinary dwelling house, and of these cases, two proved fatal. Of the 82 cases treated in the shanties, not one proved fatal.

No wonder, then, that Prof. Clymer should use the following emphatic language: "This disposition to recovery should not, then, be thwarted by meddlesome interference, or mischievous activity. There are no means by which an attack of typhoid fever can be cut short, or its duration even materially abridged. All

treatment must be auxiliary, and should be directed towards the shelter from serious harm of the essential functions."

Dr. Watson says, "He must be reckoned the safest and best practitioner, who knows when to abstain from acting as well as to act, who has learned when and to what extent the case may be left to the salutary processes of nature."

I hear of physicians all around me, in fact throughout the valley, treating typhoid fever as a very general disease, a type of fever predominating over our well known malarial diseases, and were these reports true it would most undoubtedly be an endemic disease. I hear of physicians in this place, in places near, in fact everywhere, who have treated, successfully, cases of *true typhoid fever* in from three to ten days, cases, too, that had all the essentials of this fever. Can this be true? I think not; because the history given us of this fever will not confirm it. The preponderance of evidence declares it to be a self-limited disease; a disease having a specific course, which no known treatment can materially abridge. I have repeatedly asked physicians that met with this fever so often the treatment they adopt, and I find it invariably similar to that we would give for the cure of our malarial types of disease, and not at all applicable for the cure of typhoid fever. I am very confident that we do not find this fever endemic in central Illinois, or in the valley of the Mississippi south of the forty-second degree of latitude. Dr. Edward F. Wood, a practitioner for many years in this place, a physician of intelligence and close observation, tells me that his views concerning this fever are precisely similar to my own. Other intelligent physicians tell me that true typhoid fever is very rare indeed. That we have some anomalous forms of disease, I won't deny. That we have fevers of a continued type, I will not deny, but these fevers, these diseases, as far as my observation extends, do not present any of the marked characteristics of typhoid fever, not one, except continuance. It was upon the basis of Humoral Pathology that Louis and other French physicians based their treatment; that pathology then giving way to a more rational theory, had left its impress upon many eminent minds of the period, and hence we find blood-letting the remedy par excellence in the treatment of this as well as all other fevers.

Trousseau, that eminent French Physician,

whose teachings reflect a brilliancy over all medical literature, and shed a halo of glory around his immortal name, for the masterly manner in which he grappled with this intricate question, unraveling it piece by piece, until its pathology and treatment stand preëminent for scientific research, based upon common sense, in its elucidation has expressed his opinion relative to the treating of typhoid fever in six days. On page 348-9, vol. II, of his "Clinical Medicine," he gives us the details of a case (in which, no doubt, many of our typhoid physicians can find much similarity to their own cases) where a gentleman presented himself, "complaining of giddiness, headache, high continued fever, tongue red at the point, thirst, anorexia, some fits of cough, and a profuse diarrhoea." At the first glance there was room for supposing it a case of typhoid fever, but he guarded his opinion, and in six days the patient had regained his usual health. He goes on to speak of the case as follows: "I should certainly, gentlemen, have played a lucky game if I had given, at my first visit, a decided opinion, based upon the symptoms which were then present. If, without allowing the case for a moment to follow its natural course, I had began active treatment, in place of confining myself to prudent waiting, I might have believed, and I might have told you, that I had cured a case of dothinerterria in six days, as *some physicians, who do not take into account the specific character of the disease, assert they can do*, and as homeopaths, particularly, pretend to do; I should have deceived myself, like these physicians, and like these homeopaths. Well, when these practitioners fancy that they have arrested in their career maladies which *must pursue an inevitable course*, it is because they do not regard this inevitability from the same point of view with me." He then goes on to explain fully his meaning, which is of too great length to insert here, and then says, "the intestinal catarrh of dothinerterria is a catarrh of a specific character, and we may use means for moderating it, just as we would adopt means for moderating other catarrhs, but if we try entirely to remove it we shall fail."

Our American writers, while admitting it to be a specific disease, running a specific course, point out treatment that nullifies their pathology to a great extent; in fact, Wood's treatment in this fever is similar, and adapted to all fevers. But as long as we don't have typhoid

fever as an endemic fever, his treatment can do no harm, even if applied to other fevers.

Typhoid fever, then, as we gather its history from the best known sources, is a specific disease. The materies morbi entering the system, makes its impression upon the peyerian and mesenteric glands, producing irritation, inflammation, and ulceration as a general result, each stage developing marked characteristic symptoms; should there be no constitutional idiosyncrasies, that would have a tendency to counteract the effects of the poison on the system, it has a definite and self-limited course to run, presenting in some a mild, while in others a very malignant type, the same as all essential diseases. Do we attempt to arrest the lesions of the skin in small-pox, measles, or scarlatina? not at all? we see it as a symptom of a specific disease, and welcome its appearance, knowing that it will relieve the internal organs, and give quietude to a frame racked with pain and fever; we also know that these specific diseases have a definite course to pursue, and we avoid as much as possible all medication, relying on nature for restoration. So it must be with typhoid fever, when and wherever met.

Then, believing, as we do, that this fever is specific in character, and propagates itself by contagion, we cannot recognize it as being an endemic disease, common and peculiar to the people of the Mississippi Valley, and in support of these views, I append a synopsis of seven thousand eight hundred and eighty-three cases, coming legitimately under the head of fevers, confounding them with no other disease whatever, which were treated by me in the Valley from 1844 up to November 1, 1874, a period of thirty years.

1844. 113 Intermittent; 16 Quotidian; 91 Tertian; 6 Quartan; 105 Remittent; with 4 deaths. This year a remarkable overflow of the Mississippi River occurred, which produced an alarming amount of sickness in the year following.

1845. 329 Intermittent; 86 Quotidian; 193 Tertian; 43 Quartan; 7 Pernicious; with 3 deaths from the pernicious, death occurring in 1 in the first chill—never had the least reaction—2 in second chill, both dying in the cold stage, with an effort at reaction resembling the collapsed condition of cholera. 308 Remittent; with 7 deaths, 3 resulting from relapse after recovery from first attack, 4 complicated with pneumonia. 27 Erysipelatous; this assumed a very malignant type; foetid breath, shrunken features, with tardy appearance of the eruption, which assumed a

- dark purplish color, in all cases, when the eruption disappeared rapidly; death followed in from 2 to 8 hours, almost invariably; 9 deaths.
1846. 281 Intermittent; 67 Quotidian; 201 Tertian; 8 Quartan; 5 Pernicious; 1 death. 211 Remittent, with 5 deaths; 3 of them complicated with pneumonia, 2 as result of previous debility with intermittent. 9 Erysipelatous, 3 deaths.
1847. 215 Intermittent; 43 Quotidian; 151 Tertian; 11 Quartan; 2 Double Quotidian; 176 Remittent; 6 deaths; 4 of these cases were protracted, and presented rather singular symptoms for this type of fever; in each of these cases there would be a remission of 5 to 30 minutes, occurring sometimes once in 12 hours, then in 48, and again in 72 hours, blending, as it were, the intermittent types; although quinine and opium was freely given in the remission, they did not seem to have any perceptible influence on the system.
1848. 183 Intermittent; 27 Quotidian; 148 Tertian; 8 Quartan; 125 Remittent; with 7 deaths, resulting mostly from dysenteric symptoms supervening. This year there was a marked predisposition to bowel affections, and a few well defined cholera cases occurred, while it almost assumed an epidemic form along the course of the Mississippi River. 5 Erysipelatous; 1 death, from decided brain complication.
1849. 86 Intermittent, all Tertian; the most of this type proved very refractory to treatment, and in several, a low form of continued fever supervened, requiring a long time to get rid of; in all of these cases, however, we would have the well marked stages of the type, although never clear of fever, until convalescence was established. 132 Remittent. These cases all were of a stubborn character, with much intestinal disturbance, sordes on teeth, tongue black and parched, with large fissures, which would exude a dark sanies, great brain disturbance; 7 deaths, and mostly confined to adults.
1850. 63 Intermittent; 17 Quotidian; 44 Tertian; 2 Double Quotidian; both cases of double quotidian died from complications of scarlatina. 174 Remittent; 18 deaths, resulting from scarlatina complication; 13 children, 5 adults. 93 scarlatina; this was the first known appearance of this fever in east Arkansas, at least of an epidemic type; the character of the disease was so malignant and fatal, that it produced a wide-spread alarm. In the beginning of the epidemic so little time was given for investigation, that nearly every case proved fatal; of the 93 cases coming under my notice and treatment, 61 proved fatal, many succumbing to the disease in six hours; it had many characteristics of malignant pernicious fever, excepting the icy coldness of that disease, while all the cases had the pseudo-membranous exudation in the fauces; the eruption was of a purplish cast, with but feeble efforts at reaction; the brain in many cases seemed overwhelmed with the shock, and patients would die in profound coma. The experience of all other physicians within the range of the epidemic, and from whom I gathered any information, was very similar to my own; of these 93 cases, 57 were confined to blacks, and of the deaths, 39 were blacks; the first case was that of a colored girl, 19 years of age, and death occurred in 5 hours from the time she made any complaint of being unwell.
1851. 319 Intermittent; 11 Quotidian; 307 Tertian; 1 Double Tertian; 155 Remittent; 9 deaths.
1852. 201 Intermittent; 47 Quotidian; 146 Tertian; 8 Double Tertian, 176 Remittent; 4 deaths, from dysentery supervening; intestinal irritation was prominent in all diseases. Cholera appeared sporadically in this and Woodford county, assuming a mild character in some, and in many a very malignant and fatal form. It made its appearance in this town in a family who were in comfortable circumstances, and no local cause could be found from which to trace its origin; it carried off nearly the entire family in a few days. No treatment, I am told, did the least good in the malignant form. Cases of it were quite frequent along the line of the Illinois Central Railroad, then building, and generally of a fatal character.
1853. 211 Intermittent; 16 Quotidian; 187 Tertian; 3 Double Quotidian; 5 Double Tertian; 89 Remittent; 1 death from chest complication.
1854. 166 Intermittent; 5 Quotidian; 147 Tertian; 6 Double Tertian; 8 Double Quotidian; 117 Remittent; 2 deaths.
1855. 186 Intermittent; 18 Quotidian; 164 Tertian; 4 Double Tertian; 93 Remittent; 2 deaths.
1856. 196 Intermittent; 11 Quotidian; 178 Tertian; 3 Double Tertian; 4 Quartan; 98 Remittent; 2 deaths. 4 Continued; these cases ran 12 to 20 days; all had marked remissions, yet peculiar symptoms of the brain; no intestinal trouble, no sore eruption, no marked symptom of typhoid fever.
1857. 93 Intermittent; 3 Quotidian; 78 Tertian; 4 Double Tertian; 8 Quartan; 124 Remittent; 3 deaths.
1858. 138 Intermittent; 8 Quotidian; 113 Tertian; 9 Double Tertian; 8 Quartan; 175 Remittent; 3 deaths.
1859. 181 Intermittent; 1 Quotidian; 172 Tertian; 8 Double Tertian; 95 Remittent.
1860. 117 Intermittent; 14 Quotidian; 101 Tertian; 2 Quartan; 131 Remittent; 5 deaths.
1861. 83 Intermittent; 6 Quotidian; 74 Tertian; 3 Double Tertian; 131 Remittent; 2 deaths; 13 continued. These cases would commence as an ordinary intermittent, yet would not yield to the therapeutics of this disease. After the third or fourth paroxysm, the fever would continue longer, with sweating stage less, until a regular remittent type of fever would exist; this would continue

several days, the remissions becoming less, until a continued form of fever would be present; the cases would run from 20 to 40 days; during the time careful watch was kept, to discover any rose eruption; the bowels, while loose in some cases, were not so in the majority; the discharges in all would be dark and vitiated; no mental disturbance, and the general expression that of ease; recovery took place in all the cases treated.

1862. 73 Intermittent; 69 Tertian; 4 Quartan; 149 Remittent; 3 deaths; 10 mixed or continued cases, running 10 to 20 days, ending in health.

1863. 48 Intermittent; 6 Quotidian; 42 Tertian; 150 Remittent; 2 deaths; 10 Erysipelatous; 2 deaths; 6 mixed, or mild Continued.

1864. 41 Intermittent; 3 Quotidian; 36 Tertian; 2 Quartan; 161 Remittent; 1 death; 6 Continued; 4 deaths. The history of these cases are interesting, from the fact that four of them occurred in one family, all dying.

J. R., a young man, was brought home in November, sick, from an army hospital, and presented some of the essentials of typhoid or typhus fever; he had been sick some time, with fever complicated with dysentery, which were present when I first saw him. His father's residence consisted of two rooms on lower floor, and one above; all of the cooking, washing, etc., was done in one room, while the other was occupied as a general sitting room; in it was placed a bed for the use of the father and mother; in this bed, close by a coal stove, the son was placed, and covered in part by his army blankets. After learning as much as I could of the history of the case, I made careful examination for the rose colored eruption, expecting certainly to find it. Next examined the stools, which were small in quantity, and consisted mostly of mucus. Pulse 108, and feeble; mind wandering occasionally; general expression of features listless, with purplish blush over whole face; the bowels were slightly tympanitic; tongue dark, and crusted with a deep brown fur; sordes on teeth; skin warm, but had a peculiar doughy feel. Not being satisfied as to the exact condition of the patient, I prescribed for the most urgent symptoms. Gave ten grains subnitrate of bismuth, combined with twenty grains compound powder of chalk and opium, two grains quinine, given once in four hours. Ordered the body to be sponged carefully off, the room to be kept quiet, and to admit all the fresh air into the room consistent with comfort; to have egg-nog, with good soup. November 12th. Found patient in condition similar as yesterday, excepting that the bowels did not move so often; pulse 112, feeble; the blush deepened in color; brain about same; found it impossible to have all the air admitted that was essentially necessary to any improvement. Continued treatment, omitting opium. November 13th. No improvement in general appearance, as the bowels were sufficiently checked, ordered

turpentine stupes to the abdomen, with cold ice water to the head, and gave carb. ammonia, eight grains, quinine five grains, every four hours, with turpentine emulsion between, twenty drops for a dose. Egg-nog liberally, with good nourishment. November 14th. Patient evidently failing, and upon a very careful examination can't see why the treatment should not make some perceptible impression; bowels moved twice in twenty-four hours; comatose condition; quit all medicine and relied on careful nursing and nourishment, but nothing seemed to do the least good, and the patient died twelve days after his arrival at home.

On the 5th of December following, D. R., the father (who had received an injury from being thrown from his horse, a short time before) was taken quite sick with prolonged chill, lasting, as was told me, some eight hours, followed by high fever and intense headache, with great pain, not local, but as he said, all over me. Found the patient with high fever; pulse 116, strong; considerable headache; tongue light yellow coat; skin dry and parched; thirst urgent; bowels constipated; bled him to extent of 16 oz., by guess, think there was some more; let blood flow until an impression was made on pulse; gave cal. rhie and soda aa, x grains, to be followed in four hours with a saline purgative.

Next visit found the pulse 100, soft; skin more yielding; tongue with coat heavier and of same color; the bowels had acted freely, throwing off a large quantity of vitiated bilious matter; thirst about same as yesterday; repeated the alterative and purgative powder, followed with a saline draught, and gave spirits nitre, dulc. in effervescing mixture every hour, two hours, or as was indicated by the skin; left also powder of quinine, two grains; Dover's, six grains; nitrate potassa eight grains; one to be given every three hours after the action of the purgative.

Next visit found that the purgative had acted as well as could be desired; passing freely of bilious matter; tongue slightly moist; skin slightly moist; pulse 113, feeble; mind a little wandering through the night; features natural, at least none of that lifeless expression as was present with the son; says he feels better; the increase of pulse with incoherent talk made me very careful about my opinion of the case; gave a powder of calomel two grains, ipecacuanha one grain, camphor four grains, nitrate potassa eight grains, repeated every four hours; the body to be sponged carefully, and the body and bed linen to be changed daily; to have the effervescing mixture when wanted.

Next visit found patient with profuse perspiration; pulse 122, feeble; expression listless; appeared to be asleep; speaking to him would call his attention, and he would answer rationally, but would soon pass into this sleepy condition; the whole body and limbs were examined daily for any eruption, found none;

bowels acting only when medicines were given; no trouble to have them act; pupil of eye would contract and expand to the impression of light; think the brain trouble arises from a lack of proper aeration of the blood, more than any special disease of cerebral membranes; being very cold, it seemed impossible to have anything like sufficient ventilation; ordered good nourishment, with good whiskey toddy, to be given ad libitum; gave carb. ammonia 3j, in aqua. camph. 3vj, tablespoonful every hour, two, or three hours, as required.

Next visit found my patient in articulo-mortis, and shortly after my arrival, died, without a struggle, in nine days from commencement of illness. It may be possible that he received injuries when thrown from his horse, a few days prior to his being taken sick, that produced the grave symptoms.

E. R., a young man, aged twenty, was taken sick two days after his father; was placed on a lounge in same room; symptoms very similar to those of father. Had Doctor Edward F. Wood, a very intelligent and observant physician of the place, called in consultation; after long and patient investigation, we were undecided as to the true character of the disease. We could not say it was malignant remittent fever, because we could detect or learn of no remissions at any time as regards the fever. We could not recognize it as typhoid fever, because we could detect no characteristics of that fever. We could not say it was inflammation of the cerebral membranes, because there was no raving delirium, no convulsions, no suffusion of the eyes, and in the end, not that profound coma and insensibility which characterizes the disease. and, after careful thought, resolved that it was the best plan to treat the case from a common sense standpoint, and trust to nature. We both attended this case; symptoms and cause similar to the other two, and in six days he died.

The mother was taken sick, in a similar manner, during the sickness of the son, ran the same course and she died.

Dr. Wood and myself entreated the remaining members of the family to vacate the premises, believing it was the only thing that would preserve their lives; to throw open the windows and doors to the storms and winds, and by that means, get rid of the contagion so manifest. Not another case occurred in the family, nor in the settlement, that I ever learned of.

1865. 49 Intermittent, all of the Tertian type; 151 Remittent; 2 deaths; 8 Erysipelatous; 1 death.

1866. 51 Intermittent; 2 Quotidian; 49 Tertian; 125 Remittent; 15 Erysipelatous; 1 death. 12 Scarlatina; 3 deaths.

1867. 61 Intermittent; 1 Quotidian; 61 Tertian; 118 Remittent; 2 deaths. 3 Erysipelatous; 1 death. Asa Smith.

1868. 72 Intermittent; 2 Quotidian; 68 Tertian; 2 Quartan; 121 Remittent; 1 death.

1869. 67 Intermittent; 5 Quotidian; 62 Tertian; 46 Remittent.

1870. 27 Intermittent; 2 Quotidian; 25 Tertian; 60 Remittent; 1 death. 6 Continued.

1871. 19 Intermittent; 19 Tertian; 67 Remittent; 2 Erysipelatous; 1 death.

1872. 13 Intermittent; 13 Tertian; 71 Remittent; 1 death. 5 Erysipelatous; 1 death.

1873. 10 Intermittent; 1 Quotidian; 15 Tertian; 54 Remittent; 1 death. 3 Erysipelatous.

1874. 5 Intermittent; 5 Tertian; 41 Remittent. 1 Continued. This case occurred in a lady aged 40; never was sick before; while she had more or less intestinal irritation, she had some of the ochre stools; never had the least mental disturbance; never had any sign of an eruption. Epistaxis occurred once; whole time of continuance about 40 days. This case comes nearer being a specific disease than any other met with.

It will be seen that Intermittents and Remittents are becoming annually less, while diseases of the lungs and air passages largely on the increase. There were 3704 intermittent; 3929 Remittent, with 101-46 continued; 4 deaths; 12 Pernicious; 4 deaths; 105 Scarlatina; 64 deaths; 87 Erysipelas; 20 deaths; there were 401 of the Intermittents Quotidian; 2874 Tertian; 50 Double Tertian; 13 Double Quotidian, and 102 Quartans.

HOSPITAL REPORTS.

PENNSYLVANIA HOSPITAL.

CLINIC OF ADDINELL HEWSON, M. D.

Demonstrating some of the Elements of Mechanics Involved in Methods of Treatment of Fractures of the Thigh.

Reported from Notes, by Frank Woodbury, M. D.

GENTLEMEN:—As I stand very much alone among the teachers of surgery in Philadelphia, in advocating the method of suspension in the treatment of fractures of the lower extremities, I will avail myself of the occasion of showing you, to-day, the results of such treatment in a case of fractured thigh, to discuss some of the mechanics involved in it. This case was admitted six weeks ago, with an oblique fracture of his right thigh, at about the junction of its middle and upper third. When admitted, there was one inch and a half shortening, the lower fragment being drawn up under the upper, which was rotated and tilted forward. Immediately on admission he was put in the apparatus most generally in use here. Sand bags and extension by pendent weights (that of two of our Philadelphia bricks suspended over a pulley of two inches diameter) secured at the foot of the bed. This apparatus having been applied before I saw him, I made no change until two weeks had elapsed, when it was evident to all that a

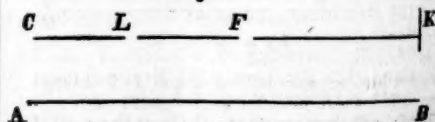
bad result would ensue if the plan was continued. You will remember that I then brought him before the class, and after pointing out the deformity and shortening, still one inch and a half, I also stated briefly my convictions that no plan of treatment in the horizontal position could make a perfect cure in such a case. That the plan to be adopted must be one which would bring the lower fragment into the plane of the upper, for there was none by which we could reduce such an upper fragment to the line of the lower. The plan for this, then, was evidently that known as flexion, and of its varieties, I briefly stated my preference for the suspended splint of Prof. N. R. Smith, of Baltimore. This splint I then applied in your presence, and to-day I have to show you the result of its four weeks' continuous use. The patient, you see, seems perfectly comfortable with the limb suspended. He sits up in bed, and moves about from side to side, and would seem to have no forces exerting their influence on his limb. In a former lecture, I referred to the value of fixing the neighboring joints in the treatment of fractures, and here you will notice the knee has been controlled by a small angular splint in the ham, and there has been applied laterally a large piece of binder's board, to keep the fragments in the same plane, and so let him have the use of his hip to sit up or change the angle of his body when desirable. Otherwise, we should have had to fix the hip joint.

On removing the apparatus and straightening the limb on the bed, you see there is no deformity at the seat of fracture, and little, if any shortening. By close examination, we can detect callus at the seat of fracture, but no distortion in the line of the limb. And as to the shortening, measurements by the most accurate means do not reveal anything over half an inch, a result, in that respect, far better than we had any right to expect, for you will remember that this has all been accomplished in the last four weeks. When I direct the patient to rotate the limb from the hip joint, and compare this motion with similar motion in the other, you will notice some little difference, that is, he everts the foot of the fractured limb to a less extent, and inverts it to a greater extent than he does the one of the sound side. This we see constantly after the best of cures of fractures in the upper part of the thigh, and always in a more marked manner where the cure has been made by extension on the horizontal plane; this is from the fact I have stated to you before—the rotation of the upper fragment, which is not met at all in the latter method of treatment as it is in the former. The cure in this case may, therefore, be unhesitatingly pronounced a perfect one.

I remarked to you a moment ago, before disturbing the dressing, that the patient seemed, with his limb suspended in the air, to have no forces whatever exerting their influence on his limb. Now I will show you, by a simple experiment of suspending his nude limb in a sling below the knee, attached to a cord passed over a

small pulley wheel, and a movable force attached to the other end of that cord, that it requires a considerable amount of force to hold the heel sufficiently off the bed to allow the limb to swing. To maintain so slight an elevation as this, you see the weight of three whole bricks (over thirteen pounds) is required, and as the segments of the cord from either side of the pulley are parallel, and the pulley is fixed, we know, by a law of elementary mechanics, that the resistance and power are just equal in gravity. To raise the limb still higher, we have, as you see, to add more bricks to the cord, and to overcome such gravity as exists in the limb, flexed at the knee, and raised high enough to make the axis of the thigh form an angle of about twenty degrees with the plane of the bed, we have to use six bricks, or twenty-seven pounds weight. Effects of such resistance and power are to be seen in this man's ham, by the condition of the tissues there; they are reddened from the pressure. I will now reapply the dressing, and, as I do so, you will notice I first, after supporting the bent knee on a pillow, secure the wire splint on the dorsum of the limb by a number of strips of bandage—two at the knee joint, retaining the angular splint in the ham; two at different points of the thigh; two, for the same purpose and manner, in the leg portion, and one for the heel. I then suspend the whole from the pulley by the cord, using, as a counteracting force to the resistance offered by the limb, a check block on the two parts of the cord, so that we do not have the movable force, as with the bricks. I am not only careful now to see that the tension in each of these strips is the same, but move the frame from which the suspension is made so far down the bed that the suspending cord will no longer be perpendicular to the bed, but form such an acute angle as will increase the traction on the lower fragment, and even, when we require it, raise the buttock off the bed, sufficient to pass the hand under it. This being done, we next apply a roller from the toes up to the groin, and so effect a thorough diffusion of the resisting force offered to such a position of the whole limb. To maintain the limb in that position, I will now show you that the movable weight of seven bricks is required; that is, over thirty pounds. You can, therefore, no longer think that there are no forces at work keeping up extension and counter-extension at the seat of fracture in such a case, when suspension is being used. This I wish to discuss with you still more accurately in relation to the principles of mechanics involved in it, and for

Fig 1



that purpose I will first consider those involved in the method (Fig. 1) of extension, so called.

If we take C L F K to represent the fractured limb, when in an extended position, and A B the surface of the bed covered by that limb, we have the weight of the limb diffused over that surface, and the weight and resistance are equal; we have the same state for the rest of the body and surface of bed covered by it. The surface of the bed being horizontal, the centres of gravity for every portion of this man's body and limbs, when at rest, are at right angles to the surface underneath them, and the corresponding points of the bed furnish, in each instance, a resisting force in a vertical direction, and directly opposing them. In this respect both limbs are alike, but where a fracture exists in one, a new force comes into play to disturb this state of rest, and which has no such action in the sound limb. I refer to the traction force produced by the muscles on the front and back part of the thigh, known as its long flexors and extensors. These, by the tilting up and forward of the upper fragment, do not have the firm resistance offered, through the axis of the thigh bone, to their free contraction, as in the other limb; but, as by their contractions they will approximate the points of their origin and insertion nearer and nearer to each other, a displacement must be effected in the portion of limb below the fracture, if their contractions are capable of moving it on the bed, for such muscles may be paralyzed, and then no change of position is brought about, or they may be so weak as not to cause it. Where they are capable of producing shortening, it is evident they draw the limb up the bed, for, acting as a moving force between two movable bodies, they move and approximate, the lesser to the greater in weight. With the axis of the whole limb and the plane of the bed supporting it being still horizontal, the resultant of the action of these two sets of muscles would be in a horizontal line, owing to the lines of their forces forming the same angle with the axis of the thigh at the

application from there must result in other than a horizontal line. Thus D, Fig. 2, which represents the anterior superior spine of the ilium—the origin of the rectus femoris—and E, which represents the tuberosity of the ischium—the origin of the chief part of the ham-string muscles—when connected by a line, are found to bear a singular relation to C—the centre of the acetabulum and the fulcrum on which a sound os femoris acts—E being the same distance below as D is above C. These relations to C make the leverage different in the two instances of the forces applied from D and E, and very much in favor of that of E F over that of D F. Where the thigh bone is broken there ceases to be leverage from the hip joint, and the powers through D F and E F become merely traction forces to overcome the equilibrium which otherwise existed between the diffused weight of the limb and the resistance of the bed underneath it. In this character the advantage is, in every way, in favor of D F. In fact, traction force on that line is in the most favorable direction, and that on E F is in the most unfavorable, to disturb that equilibrium, if the force is acting on either alone; and the resultant of forces acting on the two must, to effect motion, favor the direction of D F as to the horizontal plane, as such resultant has to somewhat lift the weight of the limb from off the bed, or be so powerful as to move it horizontally in spite of the greater resistance applied in that direction, by friction. [The shortening in a fractured thigh may have resulted under other circumstances than those which we have been considering, as in lifting the patient on to the bed, or the like. When existing, and efforts are made to reduce it by traction on the horizontal plane, it is found that greater additional force is required than that represented by the actual weight of the limb acting in such a plane. Thus, even more than three bricks applied by a cord over a pulley so as to act horizontally, will not reduce the shortening in a strong, hearty man, like the one before you; and the patient will unconsciously slide himself down in bed to ease himself from the tension of such force on the irritated muscles of his thigh, and that, too, long before such tension can exhaust their contractions.]

To obviate this we do what is called *setting* the limb, and here every practical surgeon applies force strictly in accordance with the laws of mechanics, although many of them may be always ready to express great contempt for such laws. He takes the leg on his two hands, raises it off the bed, and, flexing it at the knee, he then makes traction in the line of the upper fragment until he overcomes the shortening, renewing his efforts, if the first failed, after further flexion at the knee and hip have been made. The fracture being thus set, the limb is carefully returned to the horizontal plane, strong traction being steadily kept up by the hands until the limb is put in the right position and the weight applied over the pulley. But now no more weight is used than is sufficient to counteract the muscles. For this purpose the weight

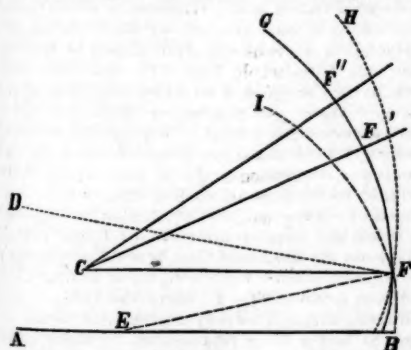


Fig 2.

knee joint, as seen in E F C and D F C, Fig. 2, provided these muscles were equal in force. A careful study of their relations at the hip joint will show, however, that, even admitting the power of the muscles to be equal, their mode of

of but one brick may be sufficient, or may be made so by raising the pulley above the plane of the axis of the limb, and so giving the same advantage to its line of traction as we have seen was possessed by force along D. F. (Fig. 2), or the foot of the bed may be elevated so that its plane ceases to be horizontal, and the gravity of the whole body forms an obtuse angle with that plane, and is constantly tending to draw the body up the bed. This expedient experience has shown to be more satisfactory than that of increasing the weight at the foot, which eventually draws the whole body down, and favors the return of the shortening. The treatment of fractured thighs by extension, with weights over the end of the bed, is, therefore, most satisfactory, when the foot of the bed is elevated, but then it is no longer treatment on the horizontal plane, and the forces at work are employed at great disadvantage mechanically, and consequently, I may say, at inconvenience to the patient, not simply as to the tilted position in which he has to be in bed, but as to the continuance of the traction force after the muscles are sufficiently lengthened to allow of the fragments remaining in proper apposition, an objection which always exists in the methods of extension by movable weights.

In adjusting a fractured thigh for treatment in the suspended splint, we do not give ourselves the concern about the preliminary setting, as we do in the method by extension, but put it in the state of flexion in which we wish it to remain during treatment, and support it in that position by a rolled up pillow under the knee, until we get the splint bent at the proper points, applied on top of the limb and secured by bandages. During this time, we often observe that the fragments adjust themselves into their proper places. By reference to Fig. 2, we can explain why this occurs, as well as why reduction takes place more readily by traction when the limb is flexed, than when it is extended, as was before stated. Thus, the muscles enveloping a fractured thigh bone (unless the fracture is much comminuted), give such solidity to it that it still revolves at the acetabulum when moved by external force. If, therefore, C F is taken to represent a shortened fractured thigh bone, its lower extremity when flexed forward through 25° would be at F', and through 30° at F''. The dotted line D F and the interrupted line E F, representing respectively the length of the flexors and extensors when the limb is horizontal, will, when the limb is flexed forward, describe very different arcs from that of C F: thus the arc of D F will be that of the dotted line F H, and that of E F the interrupted line F I. The latter arc, F I, bisects the radii C F' and C F'' at points not only nearer to C than the arc described by C F, but does so much nearer on C F' than on C F'', whereas the arc F H, described from D, is of a greater circle, but starting from the same point, F, with the others, and with its centre, D, above the planes of their centres, the further it ascends the further it is beyond the other, so that when we

project the line of the thigh bone from F' and F'', which represent the position of the knee joint at these points, we have a fair idea given us of the lessening—and of the difference in lessening—of tension of the muscles from D F, in the elevations of the limb. In the same way we have shown us the lengthenings or stretching to which the muscles from E are subjected by such elevations. These lessening on the one side and lengthenings on the other, of the muscles, would appear, from the Figure (2) to be about equal, but this is when the limb is extended at the knee joint. When we flex that joint a different state exists, owing to both these sets of muscles being inserted into the leg bones below the knee, and which revolve round the segment of the circle formed by the condyles of the femur. So that when the knee joint is bent to a right angle, the distance from E, the origin of the hamstring muscles, to their insertion is absolutely diminished an inch and a half, and the tension brought to bear on the rectus femoris in that position is fully counterbalanced by the flexion of the thigh to the line of twenty or thirty degrees from the plane of the bed. Hence, in that position of the limb, elevated and flexed at the knee and hip-joint, the muscular power to resist the adjustment of the fracture, either where the manipulation of setting, as in the treatment by extension, or the application of the suspended splint, is reduced to a minimum. The advantage being decidedly for the latter method, as in it the reduction is made more gradual, and the same force which accomplished it is steadily kept up in the line in which it is most efficient, whereas, in the former, new forces have to be brought into play, and they in a line at great disadvantage. [When we find, in a day or more, that the adjustment has been accomplished, that is, sufficient force has been exerted to overcome the displacing power of the muscles, we can readily relax or diminish it by lowering, so that the buttock rests well on the bed. Whereas, if at that time shortening is still evident, we can shorten the suspending cord of our splint, and so elevate the leg, and lower fragment, and make the weight of the buttock an extending or traction force. Here the suspended limb resembles very accurately the arms of a quadrant balance, the leg representing the long loaded arm, and the lower fragment of the os femoris the short arm, to which is attached the weight to be balanced or drawn on. All above what is required to raise the knee up after the heel has ceased to rest on the bed, must then be what is necessary to counterbalance such weight, or indicate the traction made on it. To carry the knee, in this instance, through twenty degrees, we found we had to use a force represented by three additional bricks, or over thirteen pounds, and to raise it ten degrees further we had to add another brick. Making in all, seven bricks, to maintain the limb in the position of suspension which we desired. Setting three of these off for the weight of the limb below the fracture, we have had a traction force of the balance, or

eighteen pounds, constantly acting, and that without inconvenience to the patient, to overcome the shortening. I think I may, therefore, claim advantage for my favorite method of treatment, both as to the quantity of force and the direction in which we can use it, all demonstrable in accordance with the strict rules of mechanics.

MEDICAL SOCIETIES.

AMERICAN MEDICAL ASSOCIATION.

SECTION ON PRACTICE OF MEDICINE.

Report on the Necessity of Coincident Clinical and Meteorological Observations and Records in the study of Etiology; and on the Influences of Atmospheric Conditions in the Development of Bowel Affections of Children.

Dr. N. S. Davis, Ill., read his report, as follows:—

No department of Medical Science presents to the student less satisfaction than the present condition of etiology. There is a tendency to refer all acute diseases to zymotic action, and an equal tendency to indulge in hypotheses in place of facts. The prevalence of many diseases is influenced greatly by the season of local sanitary conditions.

Thus, bowel affections of children, cholera, periodic fevers, yellow fever, etc., prevail greatly in the Summer and Autumn, while pneumonia, croup, etc., prevail chiefly in Winter and Spring.

Among the difficulties in the study of disease is the absence of recorded facts, both in regard to the atmospheric conditions, and the date of the initial symptoms. We have abundance of meteorological tables, but many valuable points are omitted or imperfect. The statistics of mortality give only date of deaths, not the number of cases of the disease, nor the date of inception. In all, save, perhaps, contagious affections, we require three distinct series of observations and records, made at the same time, in a number of places, and for a series of years. One should be a complete registry of atmospheric conditions. The present reports only lack the reports on ozone and electricity.

Another series in the same localities should record the exact date of the inception of certain symptoms, in all cases of acute disease, and the date of any relapses. A third series would include a microscopic examination of the atmosphere. A comparison of these would give the exact relations of each in causing disease.

With the present aid of the signal service, this Association could easily plan and execute arrangements for such observations. Let this Section continue the committee year after year, charged with the duty of selecting from the signal stations those most important in a medical aspect, and engage in each one or more

competent practitioners, to keep the clinical records in regard to the initial stage of acute diseases, and as far as possible, one to make daily microscopic examination of the atmosphere. Let this committee, from these reports, semi-annually tabulate the results and present them to this body. It is true, this would require great patience and pains from all engaged, which, above all, is what the science and literature of our profession most needs. By such work, the Sections could vastly increase the value of the work of this Association.

It was in accordance with these views that this section appointed, at Detroit, two committees, one to superintend the meteorological series of observations, the other, the clinical.

As chairman of the last, Dr. Davis opened correspondence with many practitioners, and succeeded in engaging most of them in the work with special reference to recording dates of actual inception of acute attacks of disease. He appended tables, from which it was seen that in 94 cases of bowel affections, 2 commenced in May, 15 in June, 56 in July, 14 in August, 7 in September. By comparing dates of disease and meteorological records, a striking coincidence was found between the multiplication of cases and continuous high temperature, with slight winds. The same occurred in Chicago, in the cholera of 1850 to 54. This is confirmed in a variety of ways. Changes to lower temperature and winds were marked by a check to the development of new cases.

On a larger scale of observation great accuracy would be obtained. Then the chemist and microscopist may determine whether these conditions are produced by a modification of the natural elements involved, as heat, ozone, electricity, or by the rapid evolution of specific organic germs. And we may hope for an equal advance in rational therapeutics and hygiene.

The Committee recommended resolutions of thanks to the Superintendent of the Signal Service Bureau, General Myers, and that the Committee be continued.

These resolutions were adopted, and the report was referred for publication.

Dr. Wood, Pennsylvania, had been led to the conclusion that serous fluxes are the results of impressions made upon the nervous system, and dependent upon paralytic affections of the vessels, giving rise to various changes, and probably also to an influence upon the nerves of the part. He referred to the fact that Dr. Mitchell, of Pennsylvania, had studied the effect of atmospheric changes in the production of neuralgia, and that the results of his observations had been substantially negative. It is probable that every one has seen cases of neuralgia with apparent connection between the state of the weather and the presence of the pain. A gentleman received a gun-shot wound, producing neuralgic pains, and finding apparent relation with atmospheric condition, he made accurate observations, and produced a

chart with pain curves and meteorological observations. To his astonishment, there was found no relation between the pain waves and the meteorological changes.

Dr. Davis.—There is much speculation as to causes of disease; so with the action of many remedies. They are authorized to be used for certain purposes, but why, it is difficult to say. So in bowel diseases of children. One idea is, that excessive heat produces them; another is, that they depend upon teething; and perhaps thousands perish yearly because of that opinion. It is reasoned that nothing is to be done while the teeth are growing. But the fact is that in the first consecutive, steady warm weather, these affections develop rapidly, teeth or no teeth. The question is, why should the teeth have any more effect at that time, if they happen to be coming, than in general. Again, if it is simply high temperature that causes the disease, it is a question whether it does so by acting on the nervous system or not. He was not sure that heat operated solely through the nervous system. He believed it acted upon each and every atom which goes to make up the nerve molecules, but it undoubtedly affects nerve action, because these atoms are a part of the organization. What we wish to get at now, is the basis upon which to form some conclusions, and he thought the time had come to use the trained men employed by the government.

Dr. Woodruff, Ind., remarked that though these diseases prevailed most in hot weather, yet they were seen most in large towns, and the cholera infantum does not seem to prevail out of the United States. He did not believe that heat alone caused these diseases. In fact, cold seemed more powerful, and we know its effects. In 1849, it was seen that the cholera was more likely to increase upon a sudden lowering of the temperature, with an east or a northeast wind. A changeable climate had been observed to conduce greatly to this affection.

Dr. Bartholow, of Ohio, liked the spirit of the resolutions, and believed the plan, if carried out, would be of great service, not only scientifically, but chemically. He referred to the Pennsylvania Hospital report. In this it was shown that when the temperature is falling, it is unsafe to operate. About the same time, Dr. Richardson, of England, was investigating in the same direction, and arrived at the same conclusions, that barometric registrations were to be consulted when an important surgical operation was to be performed, and the operation was to be postponed when the barometer was falling. Mr. Spencer Wells was about to perform ovariectomy, and Dr. Richardson addressed him a note of objections, as the barometer was falling rapidly, fearing a fatal issue. Mr. Wells, regarding it a scientific whim, operated, and was unsuccessful. He then learned from Dr. Richardson that his belief was based upon observation of many instances.

Dr. Edgar, Mo., in confirmation of what had been said, alluded to the fact that in the princi-

pal cities, as St. Louis, Chicago, etc., the average temperature is 72° for the hot season, and the water fall is over 4 inches, while in London, Paris, and Berlin, etc., the average temperature is 62° for the same months, and the water-fall is less than 2 inches. This form of disease does not prevail abroad as in the United States. The heat is much greater in the nights in cities than in the country. This exerts a prostrating influence on all, especially the feeble, the aged, and the infant. In the gulf States these diseases do not prevail so greatly; here there is a relief for the heat of night, so that often a blanket is needed.

We can do something with the facts accumulated. They convince us that heat and moisture are two factors in the production of this form of disease. Therefore, remove the child to a purer air and a less degree of heat. Then sustain the nervous system till it can gather strength to keep the machinery in motion.

Dr. Gaillard, Ky., regarded the action as rather to obtain coincident meteorological phenomena than specific phenomena. He was able to testify as far as absolute heat is concerned. He practiced in Florida; there was not a tropical heat; from May to October the average seldom was above 85°; nights cool; heavy dews, yet there was more cholera infantum upon the peninsula than perhaps in any other place in the United States. It seems a wide-spread error that heat is essential to the production of summer diseases. If we go to the extreme north latitudes, according to Dr. Hayes, we have the fact that when heat was exceedingly great, the crew were entirely free from the ordinary summer affections. Hence something more seems to be required as a factor.

At one time, it was thought that when epidemics prevailed, ozone was at its maximum, but it was found that something else was required. The ozone factor has led to an erroneous conclusion, and perhaps the heat factor is leading in the same direction. We must take coincident clinical and meteorological phenomena, and compare them.

Dr. Wood, of Pennsylvania, fully appreciated the value and importance of these matters, and favored their investigation.

As to heat, a man may survive in a dry atmosphere at 150°, while he might be overcome in a moist atmosphere at 99°.

Heat and cold are not different. There is no such thing as cold. It is simply the withdrawal of caloric. Disease may be developed whether the body is depressed or elevated above the plane of caloric on which it is pitched.

Dr. Edgar mentioned that Dr. Stone, of New Orleans, had assured him that cholera infantum prevailed but little in that locality.

Dr. Ulrich, of Pennsylvania, differed as to the effect of heat. He believed that it exerted the first influence. There is another influence which we all have seemed to lose sight of, that is light. All will probably agree that cholera infantum cannot be treated successfully as long as the rays of the sun are always in the room.

Improper food and nursing also have a powerful influence in the production of this disease. Heat is the first cause, and the others come in as secondary.

Dr. Johnson, of Missouri, did not regard heat as the prime cause of cholera infantum. He

believed the health of the mother, and the tendency of the child, to act in the development of the disease. He believed that a great majority of cases were dependent upon the presence of a tuberculous diathesis.

To be Continued.

EDITORIAL DEPARTMENT.

PERISCOPE.

Surgery of the Arteries.

In an article on this subject in the *Lancet*, Mr. Maunder writes:—

Although in no instance in which I have tied an artery at a distance from the source of bleeding has hemorrhage recurred, yet success must be regarded as accidental, because, the vascular chain being broken, the effect of reaction and the establishment of the collateral circulation cannot be foretold with certainty. It may be questioned whether in the upper extremity, at any rate, ligature of the brachial would be a remedy for a small primary bleeding from the hand. Doubtless the more or less exhausted condition in which the patients are when this operation is resorted to, consequent on repeated loss of blood, tends to a successful issue from one point of view.

Conclusions.—From the above cases of hemorrhage we may conclude:—1. That no operation is to be performed when bleeding has ceased, unless a repetition of it would directly endanger life. 2. That the bleeding vessel is to be sought at the seat of injury, and to be secured, if divided, at both ends, either by a ligature or by torsion; if only wounded, by a ligature above and below the wound; or after section, by torsion. 3. That the injured vessel is only to be tied on the cardiac side of, and at a distance from, a wound in it, when the attempt to secure it at the wound has either been made and failed, or when such an attempt would be either anatomically injurious or pathologically useless. 4. That it is desirable to ligature the brachial artery, rather than both radial and ulnar, for secondary hemorrhage from the hand. 5. That ligature of the brachial, while it stops bleeding, also arrests destructive inflammatory changes caused by useless local efforts to check hemorrhage. 6. That blood flowing from the distal side of a wound in an artery, or ligature upon it, will in the lower extremity be often, in the upper extremity occasionally, venous in color. 7. That in malignant disease, when the growth cannot be removed, and it is impossible to check bleeding by milder measures, the feeding artery may be ligated in its continuity. 8. Where a

part is more or less disorganized, and hemorrhage renders repair very doubtful, amputation should be performed to arrest bleeding and remove a hurtful member. 9. Indirect compression will occasionally arrest severe bleeding. 10. That both the axillary and the femoral arteries may be wounded, and the pulse felt at the extremity of the limb. 11. That a wound in an artery may be recognized by the warm blood impinging on the inserted finger. 12. That direct compression upon the bleeding point will often succeed *after* the main artery has been tied, though it failed *before*; and this fact is a justification for tying a main vessel.

Diagnosis of Disease of the Liver.

The *Doctor* says that Prof. Behier lately lectured at the Hôtel-Dieu, on the difficulties of diagnosis in certain diseases, and an abstract of his observations, by M. Dalbanue, appears in *Le Courier Médical*. He related cases in which cirrhosis of the liver had been believed to exist up to the time of death, but in which the autopsy revealed abdominal cancer or some other lesion. He says that whenever ascites is the first symptom, and is accompanied by emaciation, an earthy tint, diminution of the area of hepatic dullness, with absence of vomiting, one naturally supposes the symptoms are due to cirrhosis of the liver. On the other hand, if the ascites is preceded by obstinate vomitings which began suddenly, cancer of the stomach may be suspected. As for dilation of the abdominal subcutaneous veins, this appearance is common to both diseases. He concludes that the diagnosis of cirrhosis of the liver is more difficult than is generally supposed, and in three of his cases of cancer the characteristic aspect described by authors was replaced by the earthy tint of cirrhosis of the liver.

Nitrogenous Diet in Rheumatism.

It is stated in the *Doctor*, that Dr. Andrew, in the new volume of "St. Bartholomew's Hospital Reports," says:—

That he has submitted eight cases of acute rheumatism to nitrogenous diet, which he believes promises better results in this disease than any other treatment. The pains disap-

peared on the average in 3.75 days, the longest time being 5, the shortest 2.

It is to be remarked that only young patients whose powers of nutrition are unbroken are likely to bear with benefit this powerful method of treatment, and even in these it cannot be continued very long. Dr. Parkes himself showed that the power of the heart is greatly reduced by this diet within twenty-four hours. It would seem, therefore, that such a plan is only adapted for acute cases. Nevertheless, Dr. Moss, of the Royal Naval Hospital, Esquimalt, Vancouver's Island, has applied it, though without much success, to *chronic* rheumatism, which, it appears, is very common in that island. The diet adopted was that given by Dr. Parkes, with the addition of tapioca pudding without milk or eggs. It consisted of arrowroot cakes made with butter, and sometimes with sugar or treacle. Dr. Moss gives the details of the weights and quantities. The bowels became regular, the rheumatic pains lessened, and dyspepsia disappeared.

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

—The fourth of the series of American Clinical Lectures, published by G. P. Putnam's Sons (Fourth Avenue and 23d street, New York), is by S. Weir Mitchell, and is entitled "Rest in the Treatment of Nervous Disease." It is, to our mind, the most widely applicable of any of the series, and we commend its perusal heartily. The series, so far, is very felicitously conducted.

—Messrs. T. B. Peterson and Brothers are rapidly bringing forward their cheap edition "for the million" of the Waverly Novels. They have favored us with copies of "Anne of Geierstein," "The Betrothed," "The Pirate," etc., which revive the pleasure of the first perusal of these immortal productions. The same firm are also publishing an edition of the romances of William Harrison Ainsworth, and have recently brought out a new and very agreeable story by the well-known authoress, Mrs. Ann Stephens, called "Bertha's engagement."

BOOK NOTICES.

Proceedings of the Seventh Annual Meeting of the Canada Medical Association, held August 1874. Montreal, 1875.

The proceedings make a brief pamphlet, commencing with the address of the President,

Dr. Marsden. It is chiefly occupied with some views on ethics and on the legislation requisite for the profession in Canada. The address on midwifery, by Dr. E. M. Trenholme, covers several pages. It is taken up with the theory and management of premature delivery. A singular double monster is described and figured by Dr. John Mullin. Dr. R. P. Howard read a paper containing objections to some of the recent views upon the pathology of tubercle and pulmonary consumption. He denies that the disease has a frequent origin in the ordinary process of inflammation. Dr. Archibald E. Malloch presented a paper giving several cases illustrating what he believes to be the contagiousness of enteric fever. The by-laws, etc., are appended to the proceedings.

Sex in Industry; a Plea for the Working Girl.

By Azel Ames, Jr., M.D. Boston, James R. Osgood & Co. 1875. 1 vol., cloth, pp. 158. Price \$1.25. For sale by Claxton, Remsen & Haffelfinger, Philadelphia.

The author of this volume was appointed a special commissioner of investigation in connection with the Massachusetts Bureau of Statistics of Labor, which gave him an exceptionally favorable opportunity to study the effects of mill labor on girls and women. His observation is, as a whole, unfavorable to it, and he believes that when the "good time coming" arrives, in which wisdom cries in the streets and is regarded, women will not be put at such employment. As he expresses it (in somewhat tumid language), "the normal, the God-appointed work of woman, wherein lie her full equality, her peerage, her glory, and her power, is that of the home and the mother, the rearer, the trainer, the blessing of man."

Doubtless many of the noblest of the sex of whom he here speaks will not assent to this. With other and better conditions of labor, the drawbacks shown by Dr. Ames will be diminished, and the limits now prescribed to woman's work by the laws of health may be very materially modified.

He divides his volume into three parts, Introduction, Objective and Suggestive. The observations he records are drawn from life, and are fresh and accurate, and they furnish much information on a topic which is now actively discussed, but not so actively as it is bound to be in the future. The time is not far off when it will be the question of the day.

THE
Medical & Surgical Reporter.

A WEEKLY JOURNAL,
Issued every Saturday.

D. G. BRINTON, M. D., EDITOR.

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115 South Seventh Street,
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THE LAWS OF NATIONAL DESCENT.

The laws of "transmission by descent," to which we directed attention some months back, have a much wider application than to individuals and families. They probably contain the secret of the rise and decadence of nations on the arena of world history. One after another the races of men have risen on the flood tide of civilization and sunk back again to comparative savagery, replaced and overcome by some other more highly endowed than themselves. It were easy to illustrate this from the past, but it is sufficient to quote the cotemporaneous examples of the native American, the Papuan and the Malayan races, as instances of those dying out; the modern Greeks, Egyptians, Arabians, and Italians, as examples of nationalities far behind their progenitors in energy; and the German and Anglo-Saxon communities as now masters of the situation.

The general laws relating to this physiological change in nations were discussed a few

months ago, before the London Anthropological Society, by Dr. KELBURNE KING, in a paper entitled "On Causes conducing to the Decadence of Nations." The author maintained that the race which for the time being possesses the greatest mixture of the Pelasgian, Iberian, Celtic, Teutonic, Slavonic, and Scandinavian elements will be found in the ascendant, but that as these elements separate and the original type of the race becomes purer, it will decline in power—a theory which Dr. KING illustrated at large from the history of the world.

This would seem to find in the most free admixture of blood inside of our race—the Aryan race—the secret of the greatest prosperity. In other words, the theory might be formulated that that nation is the most promising in which there are the fewest marriages between neighbors and relatives, but also the fewest between members of different races.

This formula we believe to be altogether correct, and much evidence can be brought to support it, both positive and negative. Of the latter kind we may adduce the acknowledged lack of physical stamina and frequent infertility of mulattoes and mestizoes; the barrenness of women of the Papuan race after child-bearing by a European; and the feebleness of the offspring of mixed Jewish or other Semitic with Aryan stocks. To such an extent is this latter the case in the French colony of Algeria, that a committee of the climatological society of that country has officially reported that in the matter of the acclimatization of Europeans in Algeria, alliances should not be formed with the Arab race, which is in process of deterioration and disappearance; but with the Latin races planted on the shores of the Mediterranean (Spaniards, Italians, and Maltese), which present a high degree of vital resistance and fertility.

The objection which the Jews hold to intermarriage with the Aryans is, therefore, well founded, and should be respected quite as sedulously by the latter. The neglect of such

a rule may well be one of the causes of the lesser viability of the Gentile population.

NOTES AND COMMENTS.

Therapeutical Notes.

CALAMUS IN DYSENTERY.

In the dysentery of children Dr. Evers advocates the use of the following convenient mixture:—

R. Bruised calamus root,	3ij
Coriander seed,	3j
Black pepper,	3ss
Water	Qj.

Boil to twelve ounces and cool.

Dose for an adult, one ounce three times daily: for a child, one to three drachms, sweetened, if preferred.

CARBOLIC ACID INHALATIONS.

Dr. Rothe commends carbolic acid inhalations in phthisis, and gives the following formula:—

R. Carbolic acid in crystals,	aa	2 parts
Spirits of wine,		1 part
Tincture of iodine,		10 parts. M.
Distilled water,		

Twenty-five to thirty drops to be added to one or two tablespoonfuls of water, for inhalation.

He uses the same solution for diphtheria, to paint the tonsils, pharynx, etc.

LOCAL ANÆSTHESIA

may, it is said, be obtained by rubbing for a minute the part upon which it is desired to operate, with a mixture of powdered camphor, two and a half drachms, and sulphuric ether, five drachms.

Lineard's Procedure in Retained Placenta.

In the *Gazette des Hôpitaux*, February 25th, Dr. Linéard, of Caen, calls attention to the fact that he, many years ago, published a simple procedure, which he has always found as effectual as it is safe and easy, and which is also a very efficacious means for the prevention of after-pains and uterine hemorrhage. It consists in the injection of the umbilical vein with cold water. A clean section should first be made, so as to bring the vessel plainly into view, and also to shorten the cord, which should not be more than from twenty to thirty centimetres in length. A syringe, containing at least 150 grammes, and having a long fixed canula, should be employed. The colder the

water used, the less is the quantity that need be injected; so that while 150 grammes suffice at the ordinary temperature of winter, twice or thrice as much may be required in summer.

Septicæmia after Ovariectomy.

The following aggressive propositions on this subject are defended by Dr. Netter, in the *Revue Médicale* of February last:—

1. The septicæmia of ovariectomists as a cause of death is a delusion.
2. Their practice founded on this false theory might be simplified.
3. The injection of an abundant quantity of warm water, to dilute and render harmless the poison, is alone required.

He states that Nussbaum has found that the injections during the first few hours are those which do good; after this the fluid effused is diluted and less irritating.

The Nature of Life.

At the London Anthropological Society, Dr. T. Inman read a paper on "Life: its Attributes and Belongings." Reviewing the unsatisfactory theories, and vague and mysterious phrases in which the subject was usually treated, the author contended that life exists as a power; shows its power in a distinctly defined method; it is essentially the same in each generation of each type of organism; and that its phenomena are constant in each genus within certain well-defined limits.

The Embryonic Difference in the Sexes.

Late researches clearly show that the distinction of sex in the human species dates from the moment of conception. Dr. von Beneden has recently shown further that, while it has hitherto been almost universally admitted that the testis and ovary spring from the same embryonic organ, which subsequently becomes differentiated with the advance of growth, his own researches among zoophytes have convinced him that the axiom of the identity of the two sexual glands has no scientific basis. He commits himself to the important generalization, that throughout the animal kingdom the testis in its origin is ectodermal, the ovary endodermal: that the epiblast of the embryo may hence be regarded as neuromuscular and male, the hypoblast alimentary, vegetative, and female. In vertebrata Waldeyer has shown that the Wolffian ducts, from which the testis is

formed, are derived from the ectoderm, by the intermediation of the axial cord; while the superficial epithelium of the ovary, from which the ovary is formed, is only a part of the peritoneal epithelium itself, derived from the middle layer of Remak, which with the inner layer is now regarded by many as constituting the endoderm. v. Beneden's conclusions thus receive confirmation in vertebrata.

Cauterization in Hydrocele.

Dr. Vallette, of Lyons, recommends cauterization for the radical cure of hydrocele, which he has practiced forty times, with success almost constant. He perforates the integuments with one of the branches of the caustic holder, which has a sharp point, and thrusts it into the venous bundle, whilst the other branch is placed behind the veins: the two grooves having been first of all filled with caustic, all brought together by means of a screw. This instrument remains *in situ* for forty-eight hours, and in a fortnight the cure is completed. In vaginal hæmatocele he traverses the pouch filled with blood with a seton dipped in caustic, and withdraws it next day; there arises after this a moderate, progressive inflammation, which gradually determines the resorption of the effused blood and modifies the walls of the sac.

The Climate of Florida.

One of the most carefully compiled essays on this topic that has yet appeared, is an address "On the Climatology of Florida," by Dr. A. S. Baldwin, President of the State Medical Society. He discusses the temperature, rainfall, and prevailing winds, drawing his information partly from numerous original observations, and partly from works published by the government and Smithsonian Institution. Little is said of particular diseases, as that does not come properly under his subject. The assertion, however, (p. 18) that malarial diseases in Florida are "of a mild form and easily managed," neither squares with the reports of unbiased medical men, nor our own observation. The address is neatly published, in pamphlet form, by Walter, Evans and Cogswell, Charleston, S. C.

Modern Palmistry.

Every one knows that the gipsies tell fortunes by examining the lines on the palm of the hand, which are different in every person. A new use is to be made of this ancient art of palmis-

try. Mr. W. B. Woodbury recommends that for purposes of identification (of criminals, for example) it is only necessary to get a distinct photograph of the palm of one hand, taken in a strong oblique light, so as to bring out the markings strongly. This will be found a map, he says, never alike in two persons; no disguise short of actual disfigurement can do away with the difference.

The Limit of Acoustic Power.

The normal limits of the sense of hearing is one of the subjects to be discussed next September, in the International Congress at Brussels. A very interesting study of a branch of this inquiry has recently been published in the Proceedings of the American Association for the Advancement of Science. The experimenter, Dr. Laurence Turnbull, of this city, aimed to determine the limit of perception of musical tones by the unaided ear. His results showed that the highest musical tone obtained in a normal healthy ear does not exceed over forty thousand vibrations in a second. In every instance of persons over fifty years of age, some deterioration in the auditory apparatus was noted. Where no defect was present, musical perception was sometimes wanting.

CORRESPONDENCE.

Nervous Exhaustion in the Aged.

ED. MED. AND SURG. REPORTER:—

I was called, April 11th, 1874, to see Mrs. D., æt. 68. She was reported as having been feeble for a long time, and was unable to help herself in the least, and I was sent for to see if any relief could be afforded, the family seeming to think she was likely to die any moment from old age. Of course it would not do to permit this without the previous attendance of some medical man, to take the responsibility. I found her thin, emaciated, feeble, skin cool and pale, tongue clean, intellect clear, sight and hearing good for the age, pain in the chest walls and in the head, great vertigo at every effort to raise the head, no appetite, but would take food, and it seemed to digest well; bowels regular, moving once or twice every 24 hours; stools apparently normal; she could turn herself in bed by considerable effort, but the effort seemed to increase all her symptoms of feebleness. The pulse, to my surprise, beat but 24 times per minute, and very weak. The ear over the heart confirmed the number of contractions to be only 24 per minute. Was this due to sheer nervous exhaustion or to organic lesion in the nerve masses controlling cardiac and respira-

tory action? Further inquiry proved that she had, during the morning, had several convulsions. Were these due to organic nerve lesions or to want of nutritive and blood supply to the nerve centres? Convulsions precede death, caused by hemorrhage or inanition. They also originate from, or are produced by serious central nerve changes. Which condition was the cause of the convulsive phenomena in this case? If the latter, then time alone was all the medicine needed; as it was evident that she could not, in her enfeebled state, ever outlive serious organic changes in any of the principal nerve centres. Anodynes might relieve pain and smooth her pathway to the grave, but nothing more than that, except the probability that they would likely abbreviate her short stay, by interfering with her greatly enfeebled, or rather diminished, nutrition.

I did not, however, believe this was the correct view; I found no paralysis, or paresis, in any part or in any of her five senses, and the intellect was perfectly clear, pupil normal. Mentally I pronounced it a case in which the nervous system was starving to death for want of the aliment needed for its sustenance—inanition of the nervous system—in short, I directed the treatment in accordance with this view. I should have remarked before, that the urine passed off involuntarily during the different convulsions which had already and did afterwards occur. I gave the following:—

R.	Zinci phosphide,	grs.vj	
	Strych. sulph.,	grs.iss	
	Acid arsenious,	grs.ijj	
	Caffeine cryst,	grs.xv	
	Quinæ sulph.,	grs.xx.	M.

Ft. pil. xxx.

Sig.—One every four hours.

R.	Ammonia carb.,	ʒi	
	Mucilag. acaciae,	ʒiv.	M.

Sig.—Teaspoonful, with a little water, every four hours.

In addition to the above, I gave, as a cardiac and respiratory stimulant, the following:—

R.	Atropia sulph.,	gr.ss	
	Aqua,	ʒiv.	M.

Sig. Give six drops every four hours, to be given with the dose of the carbonate of ammonia.

In the above recipes we have, I believe, the best nerve tonics and stimulants, combined so as to be easily taken, and in my experience, we have in atropia the most powerful cardiac and respiratory stimulant known to the materia medica. The nitrite of amyl was to be inhaled whenever the convulsive seizures should occur. This seemed to act admirably in cutting them short or abridging their duration, probably also in causing them to come on with less frequency.

The diet was oatmeal gruel, oyster soup, made with milk, also milk, eggs, and bread. Of some of these she took a small quantity every two hours. Strict quietude enjoined. In

the above plan of treatment there was not the least change for eight days, and during this period there was very marked improvement in strength and appearance, as also in the circulation, the pulse now being 48 to 52, with increased strength and volume.

At this date intense pain occurred in the right pleura and left temple, evidently neurotic pains, as there was no sign of any inflammatory changes in either location. An anodyne seemed to be called for loudly; but, should I give it, I feared that it would so much interfere with nutrition and the proper assimilation of the food taken, as to bring the patient back to the point where I had found her a week before. Local applications to relieve the pain were ineffectually resorted to, and after the pain had continued for twelve hours quite severe, I gave morphia acet. gr.½, every two hours, till relieved. In all, she took three-eighths of a grain. On visiting her next morning the change I had feared had actually taken place; appetite gone; has great nausea; cannot take food or medicine; is again prostrated; the pulse being down to 34, and the convulsions frequent. The day was spent without her being able to take anything but the atropia. By the next morning (10th day) the effects of the morphia had disappeared, and she was able to resume the original plan of treatment, which she did willingly. The pain did not return. From this date the improvement was steady and satisfactory in every respect, the patient going on to complete recovery, becoming as well and smart, physically and mentally, as almost any one at her age, the whole time of treatment occupied being about five weeks. It will be observed, I think, that the treatment was almost wholly directed to toning and stimulating the nervous system. The phosphide of zinc, I think, was a very important agent in the above prescription, and it will be observed that the diet was composed of articles of food that have the phosphatic elements in abundance. This is essential in these cases. "What iron is to the blood, phosphorus is to the nerves" (Routh). The effects of the anodynes used to relieve the pain is worthy of note. Inasmuch as it often produces such great disturbance or interference with the process of nutrition, it would, I think, often be wise to resort to some other form of anodyne, or otherwise leave the pain to its full sway, as it will likely result in less harm than would be done by the opiate. This is especially so in old people, and in those of a high nervous organization. Proper nutriment, and the perfect assimilation of the same, is an object that should well take the lead in cases of this class, while tonics and nerve stimulants should be carefully and judiciously administered. T. CURTIS SMITH, M. D.

Middleport, Ohio.

—A colored nurse in North Carolina tried to poison a child by spreading quicksilver on its bread.

NEWS AND MISCELLANY.

Monument to Dr. Horace Wells.

A circular has been issued in reference to this subject, from which we take, at request, the following:—

The Legislature of Connecticut, some two years ago, appropriated five thousand dollars for a monument to perpetuate the memory of Dr. Horace Wells, and the city of Hartford a like sum; and under the direction of a Committee, a colossal statue, in bronze, of Dr. Wells has been executed by Truman H. Bartlett, Esq., and will soon be ready for erection on some commanding site in the beautiful Park in the city of Hartford, where the discoverer lived, where the grand idea which was to embalm his name and memory in the hearts of his fellow-men everywhere, had its birth, and where his remains now rest.

It is upon the pedestal, which should be also of bronze, and its ornamentation, that any further funds will need to be expended. This will admit of high and costly adornment, in bas-reliefs, in inscriptions, etc., suited to exemplify the uses of the discovery, at the same time that it commemorates the discoverer; and, we are informed by the most competent judges, will admit of large outlay without transcending the limits of a severe and correct taste.

In view of this circumstance, and of the fact, also, that, as the subject has been more freely canvassed, an earnest desire has been expressed in many quarters, both in and out of the State, to take part in this undertaking, it has been thought to be expedient, for the purpose of gratifying this wish, and in order to make the work itself more nearly represent the character and value of the service rendered to mankind by Dr. Wells, to receive such subscriptions from physicians and dentists abroad, and through their agency from the public in the various parts of the country, as they may feel disposed to make. Our appeal is made primarily to the medical faculty and dental profession, not so much because they have a higher personal interest in the subject than others, but because they, of all men, best know the inestimable value of this discovery to the race.

The Committee who submit the foregoing represent the Medical and Dental Societies of Hartford, and, in so far as our object shall meet the views of our brethren elsewhere, we respectfully ask from them such friendly aid pecuniarily, as they may think proper to give us, and especially that they take such measures to bring the subject to the notice of their friends and the public as, in their wisdom, they shall consider most likely to receive a favorable response.

Letters of inquiry may be addressed to Dr. E. K. Hunt, Chairman of the Committee of the Hartford Medical Society. Subscriptions may

be forwarded to Dr. G. W. Russell, Treasurer, Hartford, Conn.

E. K. HUNT, M. D.,	} Committee of the Hartford Medical Society.
M. STORRS, M. D.,	
JAS. CAMPBELL, JR., M. D.	
DR. JAS. McMANUS, Dental Committee.	

Hartford, Conn., February 15th, 1875.

Prize Essay.

At the Annual Session of the Medical Association of the State of Alabama, held at Montgomery, April, 1875, Dr. S. D. Seelye, of Montgomery, after some remarks regarding the increasing frequency with which cases of Bright's Disease are brought under medical care in this section, the unsatisfactory though extensive literature of the subject, and the generally fatal prognosis which we are obliged to give, and believing that there is still some hidden light that may be made to illumine the subject if attention and inquiry are turned especially to it, proposed to place in the hands of this Association a prize of one hundred dollars, for the best treatise on this disease, under the following regulations, viz:—

1. Competition for the Prize to be open to the whole country.
2. A committee to be appointed to adjudicate upon the essays presented.
3. All essays to be forwarded to the chairman of said committee on or before the first day of February, 1876, and to be accompanied by a sealed letter containing name and address of the author, which letter shall not be opened until after the adjudication is made.
4. The Prize Essay to be the property of this Association, and to be published in its Annual Volume of Transactions, and all unsuccessful papers to be returned to the address of the authors; honorable mention being made of any deemed of especial merit.
5. If none of the Essays presented are deemed worthy of the prize, the committee shall have the privilege of rejecting all, in which case the competition shall be open for another year.
6. The prize shall be one hundred dollars in currency, with a certificate of this Association, suitably inscribed and bearing the seal of the Association; or it will be wrought into a Gold Medal or plate, with a suitable legend, and a fac simile of the seal of the Association engraved thereon, to be of the full value of one hundred dollars, less the price of manufacture, at the option of the successful author.
7. The adjudication shall be publicly announced at the next Annual Meeting of the Association, to be held at Mobile, during the second week in April, 1876.

The above proposition having been accepted by this Association, it now invites from the thinkers and investigators of the profession at large the generous competition which its author invokes.

Committee of Adjudication.—Dr. Jerome Cochrane, Mobile, Ala., Chairman; Dr. J. B.

Gaston, Montgomery, Ala., Dr. W. H. Anderson, Mobile, Ala.; Dr. Peter Bryce, Tuscaloosa, Ala.

BENJ. H. RIGGS, M.D.,

Secretary M. A. S. A., Selma, Ala.

New Property of Glycerin.

R. Godefroy, on examining a chemically pure glycerin, found that when heated to 302° Fahr. it took fire, and burned with a steady, blue, non-luminous flame, without diffusing any odor or leaving a residue. The glycerin had the specific gravity 1.2609. This property enables glycerin of lower specific gravity to be burned by means of a lamp wick.

Personal.

—The New York Nation says:

Two recent appointments in the University of Zürich seem to merit notice, as signs of the times. One is that of Professor W. Wundt to the chair of philosophy, the other that of Professor E. Hitzig to the chair of psychology. Wundt has long been engaged at Heidelberg, first as assistant, then as "ordinary" professor of physiology, whilst Hitzig has been a medical practitioner and lecturer on electro-therapeutics in Berlin. So far as we know, the latter has written nothing on purely mental science. His discovery of the irritability of the surface of the brain is his chief title to fame; all that he has written shows erudition, great experimental thoroughness, and conscientiousness in drawing inferences. Wundt is one of the most learned of German investigators. His own special work has lain in the senses and nervous system.

—Colonel J. H. Baxter, chief medical purveyor United States army, recently graduated from the law department of Columbian University, was, on motion of Walter S. Oox, Esq., May 31, admitted to the bar of the Supreme Court of this District.

—Dr. Mary Putnam Jacobi, has received from Paris the bronze medal awarded three years ago by the Academy of Medicine for her graduating thesis. This gives her rank of from fifth to eighth in a class of three hundred, for of that number of theses four were awarded gold and four bronze medals, and seven more received honorable mention.

—We regret to observe the decease, by consumption, at Albany, Ohio, of Dr. J. Q. S. Hudson, a contributor and long-time friend of this journal.

—Dr. H. Genet Taylor is secretary of the Camden County Medical Society, not of the New Jersey Medical Society, as stated in our last.

Items.

—It is stated that in Memphis the demand for morphine has become so large that the local druggists are considering the propriety of not selling the article unless upon the order of a physician or to a well-known citizen.

—At a recent meeting of the Academy of Natural Sciences, in this city, Mr. C. N. Pierce stated that he had found in the decayed nerve fibre of sound teeth, simple microscopic forms of animal life, living vibrios and bacteria. As there had been no communication with the outer air he could not account for their presence.

QUERIES AND REPLIES.

Morphia Hypodermically.

In answer to Dr. R. M. H., in your issue of May 26th, I would inform him that I have used, for many years, Magendie's solution of morphia, with the addition of ten grains, by weight, of Price's glycerine to each fluid ounce of the solution, for hypodermic use, and in not one instance have I found it to produce the slightest ulceration or irritation on the most delicate skin. Moreover, the glycerine prevents the needle from becoming rusty or corroded. I may also add that I never prepare more than half an ounce of the solution at one time, thereby preventing all flocculent deposits.

CHARLES CARTER CRANMER, M. D.

Saratoga, N. Y.

Dr. H.—I give you the following formula, as used by Dr. Roberts Bartholow, and which I have used with success:—

R. Morphia sulph.,	grains xvj
Atropia sulph.,	grain j
Glycerine,	drachm j
Aqua destil.,	ounce j
	M.

Sig. Five to ten, or fifteen minims.

Covington, Ky.

J. A. AVERDICK, M. D.

Dr. K. L., of La.—A copy of the English Contagious Diseases Act, relating to venereal diseases, is not just now at hand. But some of the results of such Acts will be reviewed editorially in an early number.

Dr. N. McB.—Where, and at what price, can Dr. Benj. W. Richardson's Cantor Lectures be obtained?

Reply.—They have not been published separately.

MARRIAGES.

MARDEN—CHANDLER.—In Charleston, S. C., May 1st, Dr. A. L. Marden, of Weathersfield, Vermont, and Aurilla M. Chandler, of Presque Isle, Maine.

MARTIN—CRUTCHER.—May 26th, by Rev. J. W. Cullom, Dr. J. B. S. Martin, son of Dr. J. E. Martin, and Miss Lizzie Crutcher, both of Cookeville, Tenn.

POWELL—IRWIN.—On Thursday, May 20th, at the residence of the bride's parents, by Rev. Dr. William Ormiston, Dr. Seneca D. Powell, and Lizzie, only daughter of Robert Irwin, Esq., all of New York.

SHIVERS—DAVIS.—On Tuesday, May 25th, in the private parlor of the Bingham House, Philadelphia, by Rev. James G. Shinn, Dr. Samuel G. Shivers, of Berlin, New Jersey, and Miss Essie B. Davis, of Glendale, New Jersey.

DEATHS.

LOCHENOUR.—Dr. Daniel Lochenour, of Easton, Pa., on June 1st.

THOMAS.—In New York, on Thursday, May 27th, Sarah Willard, only daughter of Dr. T. Galliard and Mary T. Thomas, aged 9 years and 3 months.